# **Contents of Volume 43**

July 1988

Editorial

Editorial		Assignment of the Functional Gene for Human Adrenodoxin to Chromosome 11q13qter and	
Invited Editorial: The Complicated Issue		of Adrenodoxin Pseudogenes to Chromosome	
of Human Sex Determination		20cen→q13.1	
Albert de la Chapelle	1	Yves Morel, James Picado-Leonard, Du-An Wu,	
		Chi-Yao Chang, T. K. Mohandas, Bon-chu Chung, and Walter L. Miller	52
Original Articles		Characterization of Six Partial Deletions in th	e
		Low-Density-Lipoprotein (LDL) Receptor Gene	8
XX True Hermaphroditism in Southern Afr	ican	Causing Familial Hypercholesterolemia (FH)	
Blacks: An Enigma of Primary Sexual		Sylvie Langlois, Johannes J. P. Kastelein,	
Differentiation		and Michael R. Hayden	60
Michele Ramsay, Renee Bernstein, Esther Zwane,			
David C. Page, and Trefor Jenkins	4	Molecular Cytogenetic Evidence for Amplification of Chromosome-specific Alphoid	d
Hypertension and Sodium-Lithium		Sequences at Enlarged C-Bands on	
Countertransport in Utah Pedigrees: Eviden	ce	Chromosome 6	
for Major-Locus Inheritance		Ethylin Wang Jabs and Nancy Carpenter	69
Sandra J. Hasstedt, Lily L. Wu, K. Owen Ash,			
Hiroshi Kuida, and Roger R. Williams	14	X-linked Hypohidrotic Ectodermal Dysplasia: Localization within the Region Xq11-21.1 by	
Linkage Disequilibrium between Cystic Fibro	neis	Linkage Analysis and Implications for Carrier	
and Linked DNA Polymorphisms in Italian		<b>Detection and Prenatal Diagnosis</b>	
Families: A Collaborative Study		Jonathan Zonana, Angus Clarke, Mansoor Sarfarazi,	
Xavier Estivill, Martin Farrall, Robert Williamson,		Nicholas S. T. Thomas, Kim Roberts, Kathi Marymee,	
Maurizio Ferrari, Manuela Seia, Anna Maria Giunta,		and Peter S. Harper	75
Giuseppe Novelli, Lucia Potenza, Bruno Dallapicolla,			
Graziella Borgo, Paolo Gasparini, Pier F. Pignatti,		Analysis of UMP Synthase Gene and mRNA	
Laura De Benedetti, Emilia Vitale, Marcella Devoto,		Structure in Hereditary Orotic Aciduria	
and Giovanni Romeo	23	Fibroblasts	
		Janet K. Winkler and D. Parker Suttle	86
Combined Linkage and Segregation Analysis			
Using Regressive Models		Determination of the Spectrum of	
George Ebow Bonney, G. Mark Lathrop,		β-Thalassemia Genes in Spain by Use of	
and Jean-Marc Lalouel	29	Dot-Blot Analysis of Amplified β-Globin DNA	
		S. Amselem, V. Nunes, M. Vidaud, X. Estivill, C. Wong,	
Models of Multilocus Recombination:		L. d'Auriol, D. Vidaud, F. Galibert, M. Baiget,	
Nonrandomness in Chiasma Number and		and M. Goossens	95
Crossover Positions			
David E. Goldgar and Parnela R. Fain	38	American Society of Human Genetics	
David E. Goldgar and Patrieta N. Patri	30	Committee and Workshop Reports	
Auditory Brain-Stem Responses in the Fragil	le		
X Syndrome		Proposed ASHG Position on	
Tadao Arinami, Miki Sato, Susumu Nakajima,		Mapping/Sequencing the Human Genome	
and Ikuko Kondo	46	Elizabeth M. Short, Chair, Public Policy Committee	101

1987 American Society of Human Genetics		Principles of Genetic Toxicology. By David Brus	
Social Issues Committee Report		Reviewed by Baldev K. Vig	108
Peter T. Rowley	103		
Genetic Discrimination: Rights and		The Man Behind the Syndrome. By Peter Bright	ton
Responsibilities of Tester and Testee:		and Greta Brighton	
Summary of a Workshop Sponsored		Genetic Medicine. By Karl H. Muench	
by the Social Issues Committee		Medical Genetics—A Legal Frontier.	
Peter T. Rowley	105	By Lori B. Andrews	
		The Stages of Human Evolution—Human and	
D. I. D		Cultural Origin. 3d ed. By C. Loring Brace	
Book Reviews		Reviewed by Robert C. Baumiller	109
Genetic Biochemical Disorders. By Philip F. Ber	nson		
and Anthony H. Fensom		A	
Reviewed by Richard E. Hillman	107	Announcements	
A Primer of Population Genetics. 2d ed.		Employment and Fellowship Opportunities; (	Call
By Daniel L. Hartl		for Proposals; Minority Data Bank Information	on;
Reviewed by John B. Jenkins	107	Meetings	111
	August	1988	
Invited Review		Mitochondrial DNA Polymorphism among Fi	ve
Minireview: The 6's and 17's of Development	tal	S. Harihara, N. Saitou, M. Hirai, T. Gojobori, K. S. Park,	
Mutants near the Major Histocompatibility		S. Misawa, S. B. Ellepola, T. Ishida, and K. Omoto	134
Complex: The Mouse t-Complex Does Not			
Have a Human Equivalent		Human Creatine Kinase Genes on	
Robert P. Erickson	115	Chromosomes 15 and 19, and Proximity of the	ne
		Gene for the Muscle Form to the Genes for	
Original Articles		Apolipoprotein C2 and Excision Repair	
Original Articles		Raymond L. Stallings, Eric Olson, Arnold W. Strauss,	
A Ganatical Madel for Vitilian		Larry H. Thompson, Linda L. Bachinski,	144
A Genetical Model for Vitiligo Partha P. Majumder, S. K. Das, and C. C. Li	119	and Michael J. Siciliano	144
Fartha F. Flajurider, S. R. Das, and C. C. Li	117	Human Pregnancy-specific β1 Glycoprotein Is	
Myopathy in Complex Glycerol Kinase		Encoded by Multiple Genes Localized on Two	
Deficiency Patients Is Due to 3' Deletions		Chromosomes	
of the Dystrophin Gene		Wai-Yee Chan and Wan-Rong Qiu	152
Basil T. Darras and Uta Francke	126		
		Variability in Predicted Rates of Down	
The Same Extra Fokl Cleavage Site Exists in	1	Syndrome Associated with Elevated Materna	1
Glucose-6-Phosphate Dehydrogenase Variant		Serum Alpha-Fetoprotein Levels in Older	
A(+) and A(-)		Women	
Akira Vashida and Takanani Takirausa	121	Emart D. Haak	140

and James F. Leckman

of Pauls et al.

A Controlled Study of Tourette

David E. Comings and Brenda G. Comings

Syndrome—Revisited: A Reply to the Letter

Orosomucoid (ORM) Typing by isoelectric		Is There a Role of Chromosome I in the Clin	ica
Focusing: Evidence for an Additional Duplica		Expression of Diabetes Mellitus?	
ORMI Locus Haplotype and Close Linkage of	f	E. Bottini, G. Gerlini, R. Pascone, M. C. Gori,	
Two ORM Loci		and F. Gloria-Bottini	217
Isao Yuasa, Kazuo Umetsu, and Kazuyuki Suenaga	165		
		Narrowing the Scope of the Journal?	
Polymorphism of the A Subunit of Coagulati	on	John J. Mulvihill	219
Factor XIII: Evidence for Subtypes of the			
FXIIIA*I and FXIIIA*2 Alleles			
Koichi Suzuki, Kiyoshi Matsui, Shigenori Ito, Kiyoshi Fujita	a,	Book Reviews	
and Hideo Matsumoto	170		
		Modern Biological Theories of Aging. Edited	
Gm Typing by Immunoglobulin Heavy-Chain	1	by Huber R. Warner, Robert N. Butler,	
Gene RFLP Analysis		Richard L. Sprott, and Edward L. Schneider	
E. C. Jazwinska, H. Dunckley, D. N. Propert,		Reviewed by Michael R. Rose	220
P. A. Gatenby, and S. W. Serjeantson	175		
		Genetic Markers of Sex Differentiation. Edited	d
A DNA Test for Indiana/Swiss Hereditary		by Florence P. Haseltine, Michael E. McClure	1,
Amyloidosis (FAP II)		and Ellen H. Goldberg	
Margaret R. Wallace, P. Michael Conneally,		Reviewed by Felix A. Conte	22
and Merrill D. Benson	182		
		Advances in Neurology, Volume 48: Molecular	r
Consanguineous Marriage and Reproduction		Genetics of Neurological and Neuromuscular	
in Beirut, Lebanon		Disease. Edited by Stefano DiDonato,	
Myriam Khlat	188	Salvatore DiMauro, Angelo Mamoli,	
•		and Lewis P. Rowland	
An Expository Review of Two Methods of		Reviewed by Robert B. Layzer	22
Calculating the Paternity Probability		,	
C. C. Li and A. Chakravarti	197		
		Announcements	
Letters to the Editor		Employment and Fellowship Opportunities;	
		Call for Proposals; Meeting; Research	
Tourette Syndrome and Neuropsychiatric		in Genetic Discrimination; and Electronic	
Disorders: Is There a Genetic Relationship?		Bulletin Board	22
David L. Pauls, Donald J. Cohen, Kenneth K. Kidd,			

206

209

# September 1988

Editorial		Primary Cultures of Renal Epithelial Cells from X-linked Hypophosphatemic (Hyp) Mice Exp	
Invited Editorial: The Human Serum		Defects in Phosphate Transport and Vitamin	
Paraoxonase/Arylesterase Polymorphism		Metabolism	
Bert N. La Du, Jr.	227	Cindy L. Bell, Harriet S. Tenenhouse,	
bert 14. La bu, jr.	22,	and Charles R. Scriver	29
Original Articles		Genetic Mapping of the 2I-Hydroxylase Locu Estimation of Small Recombination Frequence	cie
Role of Genetic Polymorphism of Human Plasma Paraoxonase/Arylesterase in Hydrol	ysis	C. E. Aston, S. L. Sherman, N. E. Morton, P. W. Speiser and M. I. New	r, 30
of the Insecticide Metabolites Chlorpyrifos		Sources of Interindividual Variation in the	
Oxon and Paraoxon		Quantitative Levels of Apolipoprotein B in	
Clement E. Furlong, Rebecca J. Richter, Sharon L. Seid	lel,	Pedigrees Ascertained through a Lipid Clinic	
and Arno G. Motulsky	230	Gail Pairitz, Jean Davignon, Helene Mailloux, and Charles F. Sing	31
Causes of Death to Age 30 in Down Syndro	ome		
Patricia A. Baird and Adele D. Sadovnick	239	Characterization of the Gene and Protein of Common αl-Antitrypsin Normal M2 Allele	th
A New Hypervariable Marker for the Hum	an	Toshihiro Nukiwa, Mark L. Brantly, Fumitaka Ogushi,	
α-Globin Gene Cluster		Gerald A. Fells, and Ronald G. Crystal	32
A. P. Jarman and D. R. Higgs	249		
		5-Aminolevulinate Synthase Is at 3p2l and	
Higher Risk of Seizures in Offspring of Mot	thers	Thus Not the Primary Defect in X-linked	
than of Fathers with Epilepsy		Sideroblastic Anemia	
Ruth Ottman, John F. Annegers, W. Allen Hauser,	257	Grant R. Sutherland, Elizabeth Baker, David F. Callen,	
and Leonard T. Kurland	257	Valentine J. Hyland, Brian K. May, Michael J. Bawden, Helen M. Healy, and Iain A. Borthwick	33
Chromosome Breakage and Recombination	at	*	
Fragile Sites		Comparison of Sequential and Fixed-Structur	re
Thomas W. Glover and Constance K. Stein	265	Sampling of Pedigrees in Complex Segregation  Analysis of a Quantitative Trait	on
Maternal Duplication Associated with Gene	1	Michael Boehnke, Martin R. Young, and Patricia P. Moll	33
Deletion in Sporadic Hemophilia			
Jane Gitschier	274		
The Gene CYP3 Encoding P450PCNI		Letters to the Editor	
(Nifedipine Oxidase) Is Tightly Linked to the		Letters to the Editor	
Gene COLIA2 Encoding Collagen Type I A	lpha	Emergenesis? If Not, What?	
on 7q21.3-q22.1		R. J. M. Gardner	34
Barbara A. Brooks, O. Wesley McBride, Colin T. Dolpi	hin,	K. J. Pl. Sadner	37
Martin Farrall, Peter J. Scambler, Frank J. Gonzalez,	280	Genetic Screening and Public Health	
and Jeffrey R. Idle	280	Diane B. Paul and Hamish G. Spencer	34
Cytogenetic Studies in Dupuytren Contract	ture		
D. H. Wurster-Hill, F. Brown, J. P. Park,		The Cumulation of Negligible Effects	
and S. H. Gibson	285	R. B. Campbell	34

#### Book Reviews

Eukaryotic Chromosome Replication. Edited by R. A. Laskey, G. R. Banks, and P. M. Nurse Reviewed by Orlando I. Miller 348

**Veterinary Genetics.** By F. W. Nicholas Reviewed by Lowell Weitkamp and Frederick Hecht

## Announcements

Employment and Fellowship Opportunities; Meetings; Training Program; ASHG Bulletin Board 351

### October 1988

349

364

374

396

Review and I	Hypotheses
--------------	------------

Somatic Mosaicism: Observations Related to Clinical Genetics

## Original Articles

Conditioning on Subsets of the Data: Applications to Ascertainment and Other Genetic Problems Susan E. Hodge

A Resolution of the Ascertainment Sampling Problem. II. Generalizations and Numerical Results

Nereda C. E. Shute and W. J. Ewens

Eric S. Lander and Stephen E. Lincoln

A Resolution of the Ascertainment Sampling
Problem. III. Pedigrees
Nereda C. E. Shute and W. J. Ewens 387

The Appropriate Threshold for Declaring Linkage When Allowing Sex-specific Recombination Rates

Pedigree Analysis of HDL Concentration in Baboons on Two Diets Jean W. MacCluer, Candace M. Kammerer, John Blangero,

Bennett Dyke, Glen E. Mott, John L. VandeBerg, and Henry C. McGill, Jr. 401

Intermediate Homocysteinemia: A Thermolabile Variant of Methylenetetrahydrofolate Reductase

Soo-Sang Kang, Jeimin Zhou, Paul W. K. Wong, John Kowalisyn, and Gary Strokosch

Imbalance of Blood Group A Subtypes and the Existence of Superactive B° Gene in Japanese in Hiroshima and Nagasaki

Akira Yoshida, Vibha Davè, and Howard B. Hamilton 42

Fanconi Anemia Mutation Causes Cellular
Susceptibility to Ambient Oxygen
Detlev Schindler and Holger Hoehn 429

The Gene Encoding the Hydrophobic Surfactant Protein SP-C Is Located on 8p and Identifies an EcoRI RFLP

J. H. Fisher, P. A. Emrie, H. A. Drabkin, T. Kushnik, M. Gerber, T. Hofmann, and C. Jones 436

Regional Localization of Chromosome 3-specific DNA Fragments by Using a Hybrid Cell Deletion Mapping Panel

Michael J. Gerber, Harry A. Drabkin, Cindy Firnhaber, York E. Miller, Charles H. Scoggin, and David I. Smith 442

Molecular Analysis of Male-viable Deletions and Duplications Allows Ordering of 52 DNA Probes on Proximal Xq

F. P. M. Cremers, T. J. R. van de Pol, B. Wieringa, M. H. Hofker, P. L. Pearson, R. A. Pfeiffer, M. Mikkelsen, A. Tabor, and H. H. Ropers

A Genetic Linkage Map of 27 Loci from PND to on the Short Arm of Human Chromosome Nicholas C. Dracopoli, Ben Z. Stanger, Caryn Y. Ito,	Genetic Studies on the Senegal Population. I. Mitochondrial DNA Polymorphisms R. Scozzari, A. Torroni, O. Semino, G. Sirugo, A. Brega,		
Katherine M. Call, Stephen E. Lincoln, Eric S. Lander, and David E. Housman	462	and A. S. Santachiara-Benerecetti	534
Recombinations between IRP and Cystic		Letters to the Editor	
Fibrosis		Letters to the Editor	
M. Farrall, B. J. Wainwright, G. L. Feldman, A. Beaudet, Z. Sretenovic, D. Halley, M. Simon, L. Dickerman, M. Devoto, G. Romeo, JC. Kaplan, A. Kitzis,		Maternal Smoking and Down Syndrome Roberta E. Christianson and Claudine P. Torfs	545
and R. Williamson	471		
Linkage Relationships and Gene Order arounthe Locus for X-linked Retinoschisis	nd	Response to Christanson and Torfs Ernest B. Hook	546
Tiina Alitalo, Henrik Forsius, Jussi Kärnä, Rune R. Frants	i,		
Aldur W. Eriksson, Stephen Wood, Torben A. Kruse, and Albert de la Chapelle	476	Book Review	
Localization of the Gene for X-linked Recess Type of Retinitis Pigmentosa (XLRP) to Xp2 Linkage Analysis M. A. Musarella, A. Burghes, L. Anson-Cartwright,		Endocrine Genes: Analytical Methods, Experimental Approaches and Selected Systems. Edited by Yun-Fai Lau Reviewed by Perrin C. White	541
M. M. Mahtani, R. Argonza, LC. Tsui,			
and R. Worton	484		
Linkage Disequilibrium in the Human		Human Genetics Education Section	
Insulin/Insulin-like Growth Factor II Region of	of	Editorial: Professional Education II	
Human Chromosome II	40.5		549
Nancy J. Cox, Graeme I. Bell, and Kun-San Xiang	495		
Application of DNA-DNA Hybridization of D Labeled Probes to the Detection of Trisomy		Letter to the Editor Nancy Steinberg Warren	551
Monosomy 21, and to Sex Determination HH. M. Dahl, K. H. Choo, and D. M. Danks	502	Feature Article: Education of Nurses in Genetics	
Molecular and Cytogenetic Characterization a De Novo t(5p;2lq) in a Patient Previously	of	Irene Forsman	552
Diagnosed as Monosomy 21		Innovations in Human Genetics Education:	
Mary C. Phelan, Cynthia C. Morton, Roger E. Stevensor Rudolph E. Tanzi, Gordon D. Stewart, Paul C. Watkins,	n,	Genetic Applications for Health Professionals: An Outreach Continuing-Education Model	1
James F. Gusella, and Jean A. Arnos	511	Program Ann N. Smith and Joan A. Scott	559
Gm <sup>3;5,13,14</sup> and Type 2 Diabetes Mellitus: An		Anni 14. Simul and Joan A. Scott	331
Association in American Indians with Geneti	ic	Educational Resources: Book Reviews	
Admixture		Suzanne B. Cassidy	563
William C. Knowler, Robert C. Williams, David J. Pettitt	t,		
and Arthur G. Steiniberg	520	Educational Resources: Book Reviews: Gradua Genetics	ite
Alpha-Globin Gene Cluster Haplotypes in th Kalahari San and Southern African	e	E. Edward Peeples	566
Bantu-speaking Blacks		<b>Educational Resources: Book Review</b>	
Michèle Ramsay and Trefor Jenkins	527	V. Elving Anderson	568

Basil T. Darras and Uta Francke

#### **Educational Resources: Book Reviews** Announcements 570 Employment and Fellowship Opportunities; Meetings Robert C. Baumiller 572

## November 1988

Invited Editorials		Intragenic Deletions in 21 Duchenne Muscular Dystrophy (DMD)/Becker Muscular Dystrophy
Molecular Cytogenetics: Toward Dissection o the Contiguous Gene Syndromes	f	(BMD) Families Studied with the Dystrophin cDNA: Location of Breakpoints on HindIII and
Beverly S. Emanuel	575	<b>Bg/II</b> Exon-containing Fragment Maps, Meiotic and Mitotic Origin of the Mutations
Genetic Investigations of Alcohol Metabolism and of Alcholism	•	Basil T. Darras, Peggy Blattner, John F. Harper, Alfred J. Spiro, Sheldon Alter, and Uta Francke 629
Gilbert S. Omenn	579	
Minimutan		Embyronic Expression of the Human 40-kD Keratin: Evidence from a Processed Pseudogene Seguence
Minireview		E. S. Savtchenko, T. A. Schiff, CK. Jiang, I. M. Freedberg,
Creating Animal Models of Genetic Disease		and M. Blumenberg 630
Robert P. Erickson	582	Localization of the Genetic Defect in Familial Adenomatous Polyposis within a Small Region
Original Articles		of Chromosome 5 Yusuke Nakamura, Mark Lathrop, Mark Leppert,
Molecular Detection of Microscopic and Submicroscopic Deletions Associated with Miller-Dieker Syndrome		Marc Dobbs, John Wasmuth, Erica Wolff, Mary Carlson, Esther Fujimoto, Karen Krapcho, Tena Sears, Scott Woodward, J. Hughes, Randy Burt, Eldon Gardner,
Peter vanTuinen, William B. Dobyns, Donna C. Rich, Kim M. Summers, Terence J. Robinson, Y. Nakamura,		Jean-Marc Lalouel, and Ray White 638  Identification and Regional Localization of DNA
and David H. Ledbetter	587	Markers on Chromosome 7 for the Cloning of
Detection of Submicroscopic Deletions in Ba 17p13 in Patients with the Miller-Dieker Syndrome Charles E. Schwartz, John P. Johnson, Bridget Holycross, Tracy M. Mandeville, Tena S. Sears, Elizabeth A. Graul,		the Cystic Fibrosis Gene Johanna M. Rommens, Stefanie Zengerling, Julie Burns, Georg Melmer, Bat-sheva Kerem, Natasa Plavsic, Martha Zsiga, Dara Kennedy, Danuta Markiewicz, Richard Rozmahel, Jack R. Riordan, Manuel Buchwald,
John C. Carey, Richard J. Schroer, Mary C. Phelan, Judith Szollar, David B. Flannery,		and La-chee Tsui 645
and Roger E. Stevenson	597	Eight Closely Linked Loci Place the Wilson Disease Locus within 13q14-q21
Cytogenetic Findings in a Prospective Series Patients with DiGeorge Anomaly Frank Greenberg, Fred F. B. Elder, Paula Haffner,	of	A. M. Bowcock, L. A. Farrer, J. M. Hebert, M. Agger, I. Sternlieb, I. H. Scheinberg, C. H. C. M. Buys, H. Scheffer, M. Frydman, T. Chajek-Saul, B. Bonne-Tamir,
Hope Northrup, and David Ledbetter	605	and L. L. Cavalli-Sforza 664
Normal Human Genomic Restriction-Fragme Patterns and Polymorphisms Revealed by Hybridization with the Entire Dystrophin cD		Molecular Basis of Abnormal Red-Green Color Vision: A Family with Three Types of Color Vision Defects

612

M. Drummond-Borg, S. Deeb, and A. G. Motulsky

675

Linkage Studies in a Large Fragile X Family		Identification of a Mutation in the Structural	
M. Patterson, M. Bell, W. Kress, K. E. Davies,		α-L-Fucosidase Gene in Fucosidosis	
and U. Froster-Iskenius	684	Patrick J. Willems, John K. Darby, Richard A. DiCioccio,	
		Phil Nakashima, Christine Eng, Keith A. Kretz,	
Improved Predictive Testing for Huntington		Luca L. Cavalli-Sforza, Eric M. Shooter,	
Disease by Using Three Linked DNA Market	rs	and John S. O'Brien 7	31
Michael R. Hayden, Carolyn Robbins, Denis Allard,		Misselve delet ferrent and Brosselve of an In-	
Jonathan Haines, Sharon Fox, John Wasmuth, Mellisa Fah	-	Mitochondrial Import and Processing of an In	
and Maurice Bloch	689	Vitro Synthesized Human Prebranched Chain	
		Acvitransferase Fragment	
Huntington Disease in Georgia: Age at Onse		Stuart Litwer and Dean J. Danner 7	6
Philip Adams, Arthur Falek, and Jonathan Arnold	695		
		HLA Antigens in Cardiomyopathic Chilean	
Correcting for Single Ascertainment by		Chagasics	
Truncation for a Quantitative Trait		Elena Llop, Francisco Rothhammer, Monica Acuña,	
Martin R. Young, Michael Boehnke, and Patricia P. Moll	705	and Werner Apt 7	7
Population Amalgamation and Genetic		Familial Resemblance of Plasma	
Variation: Observations on Artificially		Angiotensin-converting Enzyme Level: The	
<b>Agglomerated Tribal Populations of Central</b>		Nancy Study	
and South America		F. Cambien, F. Alhenc-Gelas, B. Herbeth, J. L. Andre,	
Ranajit Chakraborty, Peter E. Smouse,		R. Rakotovao, M. F. Gonzales, J. Allegrini, and C. Bloch 7	7
and James V. Neel	709		
Dural Ectasia Is a Common Feature of the			
Marfan Syndrome			
Reed E. Pyeritz, Elliot K. Fishman, Barbara A. Bernhardt		Letters to the Editor	
and Stanley S. Siegelman	726		
, , , , , , , , , , , , , , , , , , , ,		Collation of RFLP Haplotypes at the Human	
Chromosome Elimination in Micronuclei: A		Phenylalanine Hydroxylase (PAH) Locus	
Common Cause of Hypoploidy		Savio L. C. Woo 7	8
Judith H. Ford, Carolyn J. Schultz, and Anthony T. Corn	ell		
justice in the second of the s	733	Polygenes versus One Gene Plus Chance: What	t
		Are the Real Differences?	
Frequency of the Atypical Aldehyde		Ernest B. Hook	8
Dehydrogenase-2 (Gene (ALDH <sub>3</sub> ) in Japanese			
and Caucasians		Reply to Letter from Dr. Hook	
Akitaka Shibuya and Akira Yoshida	741	Steven Matthysse 7	8
Philade Shodya and Phila 103hoa		,	
Genotypes of Alcohol-metabolizing Enzymes	in		
Japanese with Alcohol Liver Diseases: A Stro	ong		
Association of the Usual Caucasian-Type		D 1 D :	
Aldehyde Dehydrogenase Gene (ALDH1) wit	h	Book Reviews	
the Disease			
Akitaka Shibuya and Akira Yoshida	744	Mapping our Genes-Genome Projects: How	
		Big, How Fast? Edited by the U.S. Congress Office	
Restriction Analysis of the Structural		of Technology Assessment; and Mapping and	
α-L-Fucosidase Gene and Its Linkage to		Sequencing the Human Genome. Edited by	
Fucosidosis		the National Research Council	
		Reviewed by Robert P. Erickson 70	8!
John K. Darby, Patrick J. Willems, Phil Nakashima, Jeff Johnsen, Robert E. Ferrell, Ellen M. Wijsman,			
Daniela Gerhard, Nicholas C. Dracopoli, David Housman	n	Catalog of Chromosome Aberrations in Cancel	r.
Jurgen Henke, Michael L. Fowler, Thomas B. Shows,		By Felix Mitelman	
John S. O'Brien, and Luca L. Cavalli-Sforza	749	Reviewed by Frederick Hecht 70	Bi

# Prenatal Diagnosis of Congenital Anomalies. By R. Romero, G. Pilu, P. Jeanty, A. Ghidini, and I. C. Hobbins

Reviewed by lames D. Goldberg

The Protolobar Structure of the Human
Kidney: Its Biologic and Clinical Significance.

By Gabor Inke Reviewed by John H. DiLiberti

787

786

#### Announcements

Employment and Fellowship Opportunities: Workshops and Programs

788

## December 1988

### Invited Editorial

Insulin-dependent Diabetes Mellitus: A Model for the Study of Multifactorial Disorders

L. Leigh Field

Genetic Studies of Human Apolipoproteins. VII. Population Distribution of Polymorphisms of Apolipoproteins A-I, A-II, A-IV, C-II, E, and H in Nigeria

B. Sepehrnia, M. I. Kamboh, L. L. Adams-Campbell, Martin Nwankwo, and R. E. Ferrell

847

## New Approach for Isolation of VNTR Markers

Calculation of Probability of Paternity, Using

Yusuke Nakamura, Mary Carlson, Karen Krapcho, Masao Kanamori, and Ray White

David W. Gjertson, M. Ray Mickey, Judy Hopfield,

Toshinao Takenouchi, and Paul I. Terasaki

**DNA Sequences** 

and David W. Hollister

854

894

## Original Articles

Genetic Heterogeneity, Modes of Inheritance, and Risk Estimates for a Joint Study of Caucasians with Insulin-dependent Diabetes Mellitus

Glenys Thomson, Wendy P. Robinson, Mary K. Kuhner, Sharon Joe, Michael J. MacDonald, Jerome L. Gottschall, Jose Barbosa, Stephen S. Rich, Jörg Bertrams, Max P. Baur, Jukka Partanen, Brian D. Tait, Edith Schober, Wolfgang R. Mayr, Johnny Ludvigsson, Bertil Lindblom, Nadir R. Farid, Christine Thompson, and Ingeborg Deschamps

Protein Variants in Hiroshima and Nagasaki: Tales of Two Cities

James V. Neel, Chiyoko Satoh, Peter Smouse, Jun-ichi Asakawa, Norio Takahashi, Kazuaki Goriki, Mikio Fujita, Takeshi Kageoka, and Ryuji Hazama

The Probability of Dizygosity of Phenotypically Concordant Twins

E. Meulepas, R. Vlietinck, and H. van den Berghe 817

Type II Achondrogenesis-Hypochondrogenesis: Morphologic and Immunohistopathologic Studies Maurice Godfrey, Douglas R. Keene, Eugene Blank, Hisae Hori, Lynn Y. Sakai, Lydia A. Sherwin,

Clinical, Genetic, and Epidemiological Factors in Neural Tube Defects

J. G. Hall, J. M. Friedman, B. A. Keena, J. Popkin, M. Jawanda, and W. Arnold 827 Type II Achondrogenesis-Hypochondrogenesis: Identification of Abnormal Type II Collagen Maurice Godfrey and David W. Hollister

Inheritance of Low-Density Lipoprotein Subclass Patterns: Results of Complex Segregation Analysis

Melissa A. Austin, Mary-Claire King, Karen M. Vranizan, Beth Newman, and Ronald M. Krauss 838 Clinical and Molecular Heterogeneity of Phenylalanine Hydroxylase Deficiencies in France

Françoise Rey, Monique Berthelon, Catherine Caillaud, Stanislas Lyonnet, Véronique Abadie, Félicienne Blandin-Savoja, Josué Feingold, Jean-Marie Saudubray, Jean Frézal, Arnold Munnich, and Jean Rey

Gyrate Atrophy of the Choroid and Retina: Assignment of the Ornithine Aminotransfera	160	Letters to the Editor	
Structural Gene to Human Chromosome 10 and Mouse Chromosome 7	130	DNA Haplotyping of PI Z and M Alleles with	thin
James J. O'Donnell, Kaarina Vannas-Sulonen, Thomas B. Shows, and David R. Cox	922	Christian Meisen, Wolfgang Poller, and Klaus Olek	97
		Prenatal Screening	
Pyridoxine Effects on Ornithine Ketoacid		Elena O. Nightingale and Susan B. Meister	97
Transaminase Activity in Fibroblasts from			
Carriers of Two Forms of Gyrate Atrophy of		Reply to Nightingale and Meister	
the Choroid and Retina		Aubrey Milunsky	98
Vivian E. Shih, Roseann Mandell, and Eliot L. Berson	929		
		Should Editorials Also Be Peer-reviewed?	
The Use of Subchromosome-Length Unique		James V. Neel	98
<b>Band Sequences in the Analysis of Prophase</b>			
Chromosomes			
David H. Lockwood, Dennis A. Johnston,		Book Review	
Vincent M. Riccardi, and Stuart O. Zimmerman	934		
		Cellular and Molecular Basis of Cystic Fibro	sis.
Selective Protection of Specific DNA Sequen		Edited by G. Mastella and P. M. Quinton	
in the Heterochromatin of C-banded Human	Y	Reviewed by Arthur L. Beaudet	98
Chromosomes		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Eduardo S. Cantú, Robert D. Marsh, Karl E. Boecklen,			
and Harry Ostrer	948	Announcements	
HLA-DR Typing "at the DNA Level": RFLPs		Employment and Fellowship Opportunities;	
and Subtypes Detected with A DRβ		Symposium	98
cDNA Probe			
Nancy J. Cox, A. Patricia Mela, Chester M. Zmijewski,	954		
and Richard S. Spielman	734	Editorial Reviewers	98
Empirical Power of Three Preliminary Metho	nde.		
for Ordering Loci	Jus	Author Index to Volume 43	98
	044	Author index to volume 43	70
Candace M. Kammerer and Jean W. MacCluer	964		
a Clabia Cons Harlaturas in Bahmasiana		Subject Index to Volume 43	00
α-Globin Gene Haplotypes in Polynesians:			
Their Relationships to Population Groups and	3	Contents of Volume 43	00
Gene Rearrangements			
M. S. Hertzberg, K. N. P. Mickleson, and R. J. Trent	971		

